

FIG 1

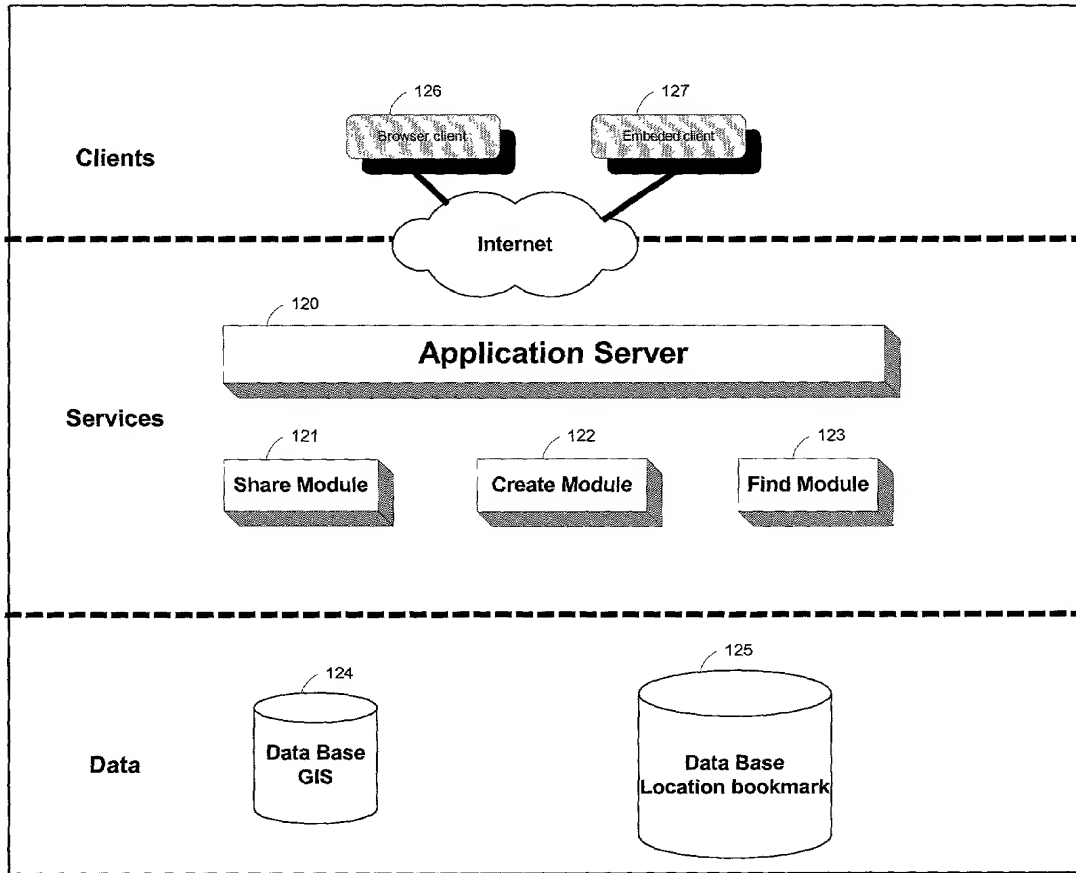


FIG 2

Element	Attribute	Times	Examples
lbk			
	version		1.0
+-identifier		1	Takara Sushi Bar
+-period		1	-
	type		event
	start		2000-12-17 08:00:00.123 -06:00
	end		2000-12-21 16:00:00.456 -06:00
+-wide.area.coordinates		1	-
	geodetic.datum		wgs84
	+-latitude	1	+38.42.28.123
	format		idms
	+-longitude	1	-112.37.43.123
	format		idms
	+-altitude	1	125
	unit		meter
	+-datetime	1	2000-12-01 17:35:12.567 -08:00
	+-accuracy	1	-
	+-horizontal.error	1	10
	unit		meter
	+-vertical.error	1	15
	unit		meter
	+-time.error	1	0.07 (70 ms)
+-local.area.coordinates		0/1	-
	coord.system	1	cartesian - 3D
	+-coordinate	1-4	
	type		offset
	unit		meter
	+-datetime	1	2000-12-01 17:35:12.567 -08:00
	+-accuracy	1	-
	+-horizontal.error	1	1
	unit		meter
	+-vertical.error	1	1
	unit		meter
	+-time.error	1	0.07 (70 ms)
+-wide.area.address		0/1	-
	+-number	1	781
	+-street	1	William
	+-intersection	0/1	Duke
	+-city	1	Montreal
	+-state	0/1	Quebec
	+-country	0/1	Canada
	+-postal-code	0/1	H3C 1N8
+-local.area.address		0/1	C-345
+-contact.info		0-	-
	xml:lang		en
	note		Contact for technical support
	+-phone	0-	15148665555+229
	+-fax	0-	15148668584
	+-email	0-	xxx@yyy.zzz
+-lbk.metadata		0-	-
	type		text, keyword, image, video, ...
	src		video/lbkdesc.mov
	xml:lang		fr
+-external.services		0/1	Any well-formed XML document that link external resources to the LBK
+-change.log		1-	-
	+-datetime	1	2000-12-13 12:23:46.234 -09:00
	+-author	0/1	Mathieu Boisclair
	+-system	0/1	Nomad Logic LBSS R.1

{#1} 0-: 0 or more    1-: 1 or more    0/1: 0 or 1    1-4: 1 to 4

FIG 3

```

<!ENTITY % NAMESPACE
    "xmlns:lbk CDATA #FIXED 'http://www.nomadlogic.com/dtd/lbk1.0.dtd'">

<!ENTITY % LOG "lbk:name, lbk:datetime, lbk:system">

<!ELEMENT lbk:root
    (lbk:identifier, lbk:event?, lbk:description,
      lbk:services*, lbk:contact?,
      lbk:coordinates, lbk:log)>
<!ATTLIST lbk:root %NAMESPACE;>

    <!ELEMENT lbk:identifier EMPTY>
        <!ATTLIST lbk:identifier value CDATA #REQUIRED>

    <!ELEMENT lbk:event (lbk:start, lbk:end)>
        <!ELEMENT lbk:start EMPTY>
        <!ATTLIST lbk:start
            format (dd:yy:yy) #REQUIRED
            value CDATA #REQUIRED>
        <!ELEMENT lbk:end EMPTY>
        <!ATTLIST lbk:end
            format (dd:yy:yy) #REQUIRED
            value CDATA #REQUIRED>

    <!ELEMENT lbk:description
        (lbk:text?, lbk:voice?, lbk:image?, lbk:video?, lbk:keywords?)>
        <!ELEMENT lbk:text EMPTY>
        <!ATTLIST lbk:text
            xml:lang NMTOKEN #REQUIRED
            value CDATA #REQUIRED>
        <!ELEMENT lbk:voice EMPTY>
        <!ATTLIST lbk:voice
            xml:lang NMTOKEN #REQUIRED
            uri CDATA #IMPLIED>
        <!ELEMENT lbk:image EMPTY>
        <!ATTLIST lbk:image
            uri CDATA #IMPLIED>
        <!ELEMENT lbk:video EMPTY>
        <!ATTLIST lbk:video
            xml:lang NMTOKEN #REQUIRED
            uri CDATA #IMPLIED>
        <!ELEMENT lbk:keywords EMPTY>
        <!ATTLIST lbk:keywords
            xml:lang NMTOKEN #REQUIRED
            value CDATA #REQUIRED>

        <!ELEMENT lbk:services EMPTY>
        <!ATTLIST lbk:services
            xml:lang NMTOKEN #REQUIRED
            note CDATA #IMPLIED
            value CDATA #REQUIRED>
        <!ELEMENT lbk:contact (lbk:phone*, lbk:fax?, lbk:email*)>
        <!ATTLIST lbk:contact
            xml:lang NMTOKEN #IMPLIED
            note CDATA #IMPLIED
            name CDATA #IMPLIED>
            <!ELEMENT lbk:phone EMPTY>
            <!ATTLIST lbk:phone value CDATA #REQUIRED>
            <!ELEMENT lbk:fax EMPTY>
            <!ATTLIST lbk:fax value CDATA #REQUIRED>
            <!ELEMENT lbk:email EMPTY>
            <!ATTLIST lbk:email value CDATA #REQUIRED>

        <!ELEMENT lbk:coordinates
            (lbk:local?, lbk:global, lbk:address?)>

```

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<!ELEMENT lbk:global
  ((lbk:latitude, lbk:longitude, lbk:altitude?), lbk:accuracy?
<!ATTLIST lbk:global datum (wgs84|xxx) #IMPLIED>
  <!ELEMENT lbk:latitude EMPTY>
  <!ATTLIST lbk:latitude
    format (ddmm.mmmmmmm|-ddmm.mmmmmmm|d|-d) #REQU
    value CDATA #REQUIRED>
  <!ELEMENT lbk:longitude EMPTY>
  <!ATTLIST lbk:longitude
    format (ddmm.mmmmmmm|-ddmm.mmmmmmm|d|-d) #REQU
    value CDATA #REQUIRED>
  <!ELEMENT lbk:altitude EMPTY>
  <!ATTLIST lbk:altitude
    unit (cm|m|in|ft) #REQUIRED
    value CDATA #REQUIRED>

<!ELEMENT lbk:local
  ((lbk:cartesian2D|lbk:cartesian3D|lbk:spherical), lbk:accura
  <!ELEMENT lbk:cartesian2D
    ((lbk:xaxis, lbk:yaxis))>
  <!ATTLIST lbk:cartesian2D unit (cm|m|in|ft) #REQUIRED>
  <!ELEMENT lbk:cartesian3D
    ((lbk:xaxis, lbk:yaxis, lbk:zaxis))>
  <!ATTLIST lbk:cartesian3D unit (cm|m|in|ft) #REQUIRED>
    <!ELEMENT lbk:xaxis EMPTY>
    <!ATTLIST lbk:xaxis value CDATA #REQUIRED>
    <!ELEMENT lbk:yaxis EMPTY>
    <!ATTLIST lbk:yaxis value CDATA #REQUIRED>
    <!ELEMENT lbk:zaxis EMPTY>
    <!ATTLIST lbk:zaxis value CDATA #REQUIRED>
  <!ELEMENT lbk:spherical
    ((lbk:rho, lbk:phi, lbk:theta))>
  <!ATTLIST lbk:spherical unit (deg|rad) #REQUIRED>
    <!ELEMENT lbk:rho EMPTY>
    <!ATTLIST lbk:rho value CDATA #REQUIRED>
    <!ELEMENT lbk:phi EMPTY>
    <!ATTLIST lbk:phi value CDATA #REQUIRED>
    <!ELEMENT lbk:theta EMPTY>
    <!ATTLIST lbk:theta value CDATA #REQUIRED>

    <!ELEMENT lbk:accuracy
      (lbk:horizontal?, lbk:vertical?)>
      <!ATTLIST lbk:accuracy unit (cm|m|in|ft) #RE
      <!ELEMENT lbk:horizontal EMPTY>
      <!ATTLIST lbk:horizontal value CDATA #REQUIR
      <!ELEMENT lbk:vertical EMPTY>
      <!ATTLIST lbk:vertical value CDATA #REQUIRED>

<!ELEMENT lbk:address
  (lbk:number, lbk:street, lbk:intersection?, lbk:city,
  (lbk:state?|lbk:province?), lbk:country, lbk:zip?, lbk:suit
  <!ELEMENT lbk:number EMPTY>
  <!ATTLIST lbk:number value CDATA #REQUIRED>
  <!ELEMENT lbk:street EMPTY>
  <!ATTLIST lbk:street value CDATA #REQUIRED>
  <!ELEMENT lbk:intersection EMPTY>
  <!ATTLIST lbk:intersection value CDATA #REQUIRED>
  <!ELEMENT lbk:city EMPTY>
  <!ATTLIST lbk:city value CDATA #REQUIRED>
  <!ELEMENT lbk:state EMPTY>
  <!ATTLIST lbk:state value CDATA #REQUIRED>
  <!ELEMENT lbk:province EMPTY>
  <!ATTLIST lbk:province value CDATA #REQUIRED>
  <!ELEMENT lbk:country EMPTY>

```

FIG 3a



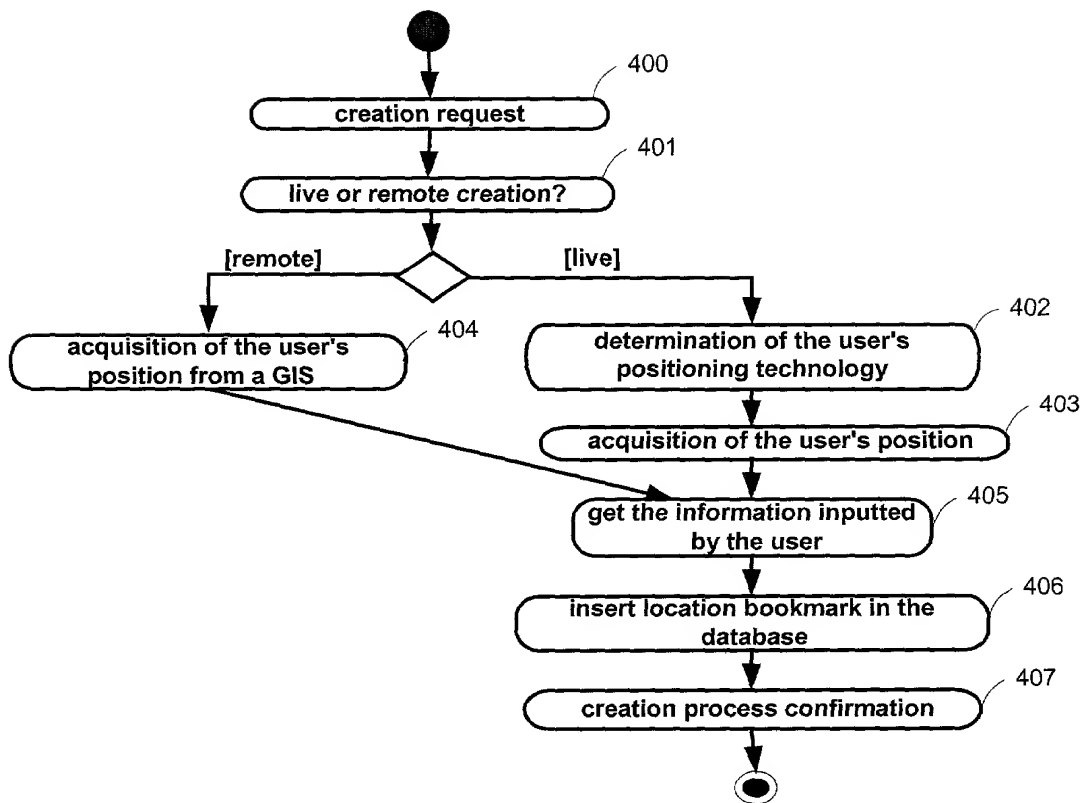


FIG 4

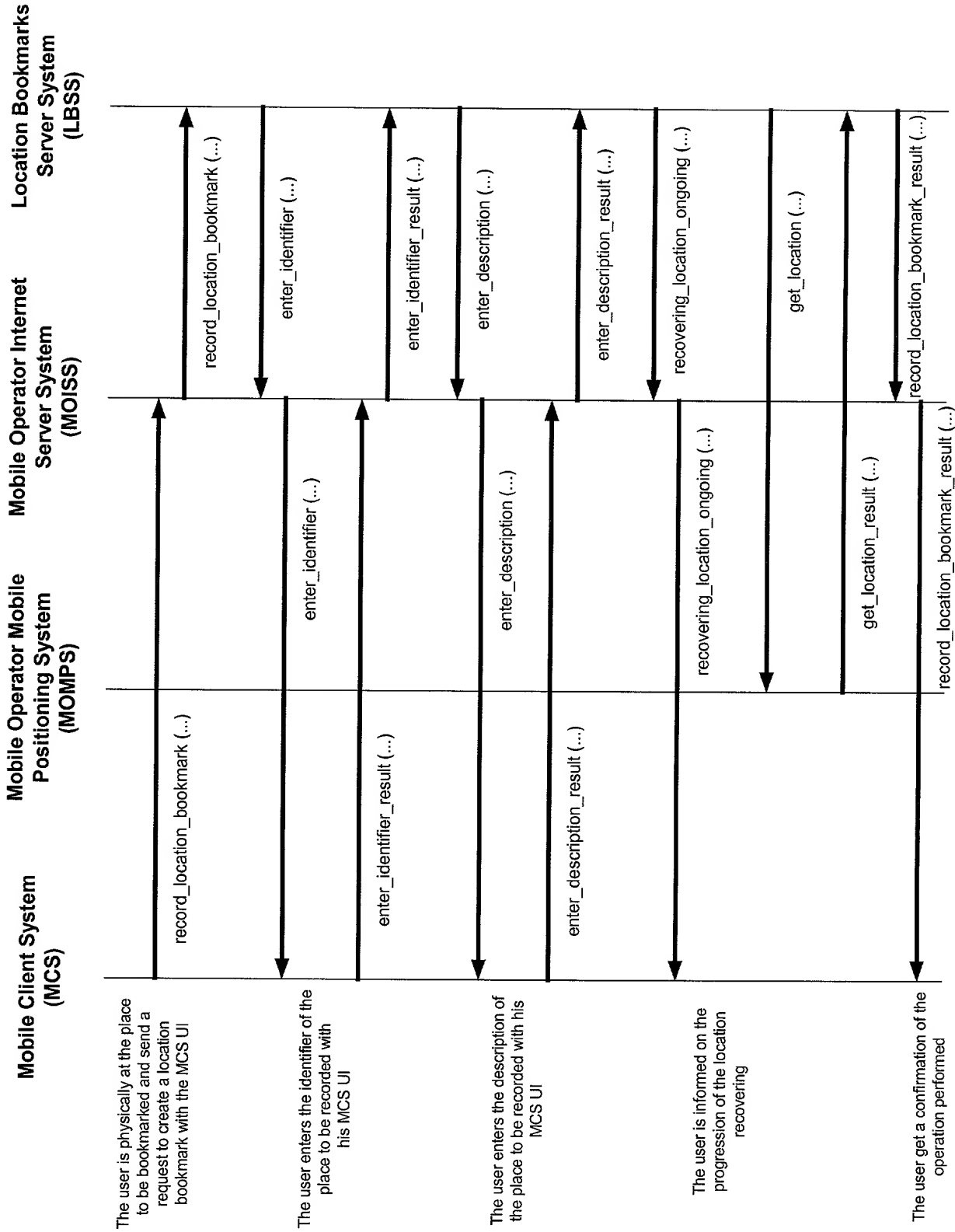


Fig 4a



**Abstract**

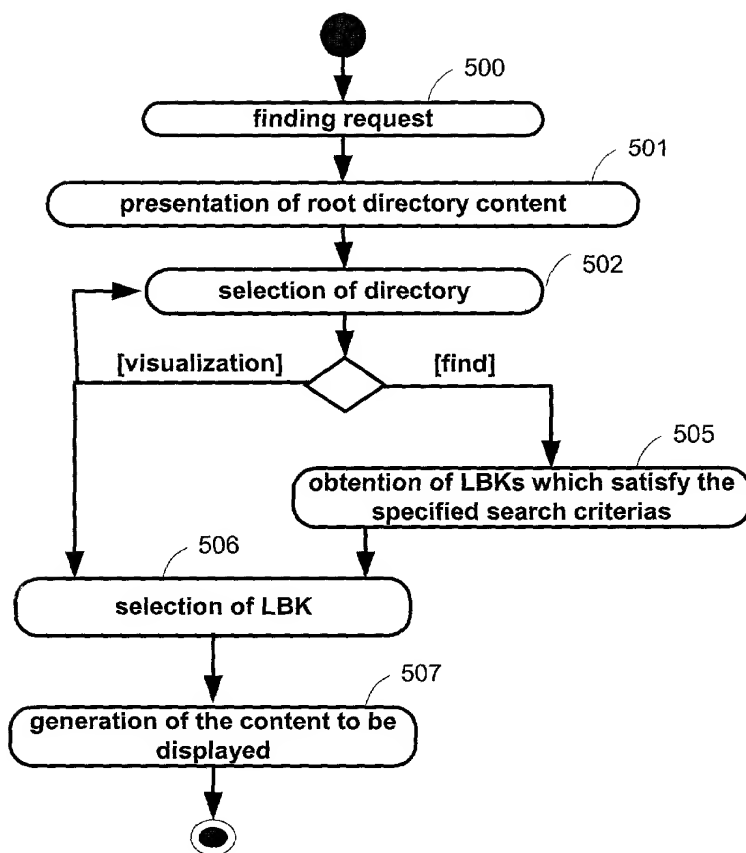


FIG 5



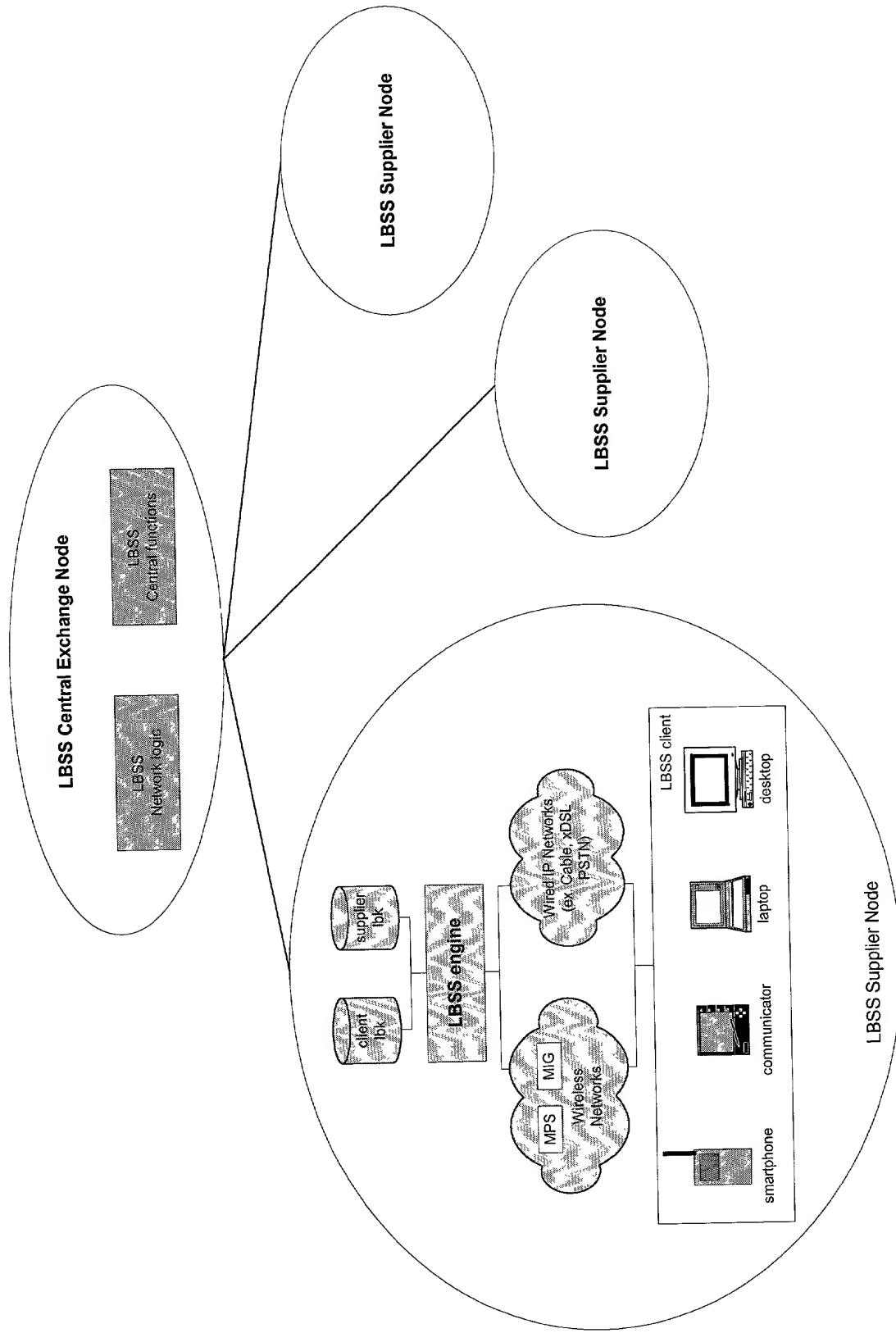


FIG 7

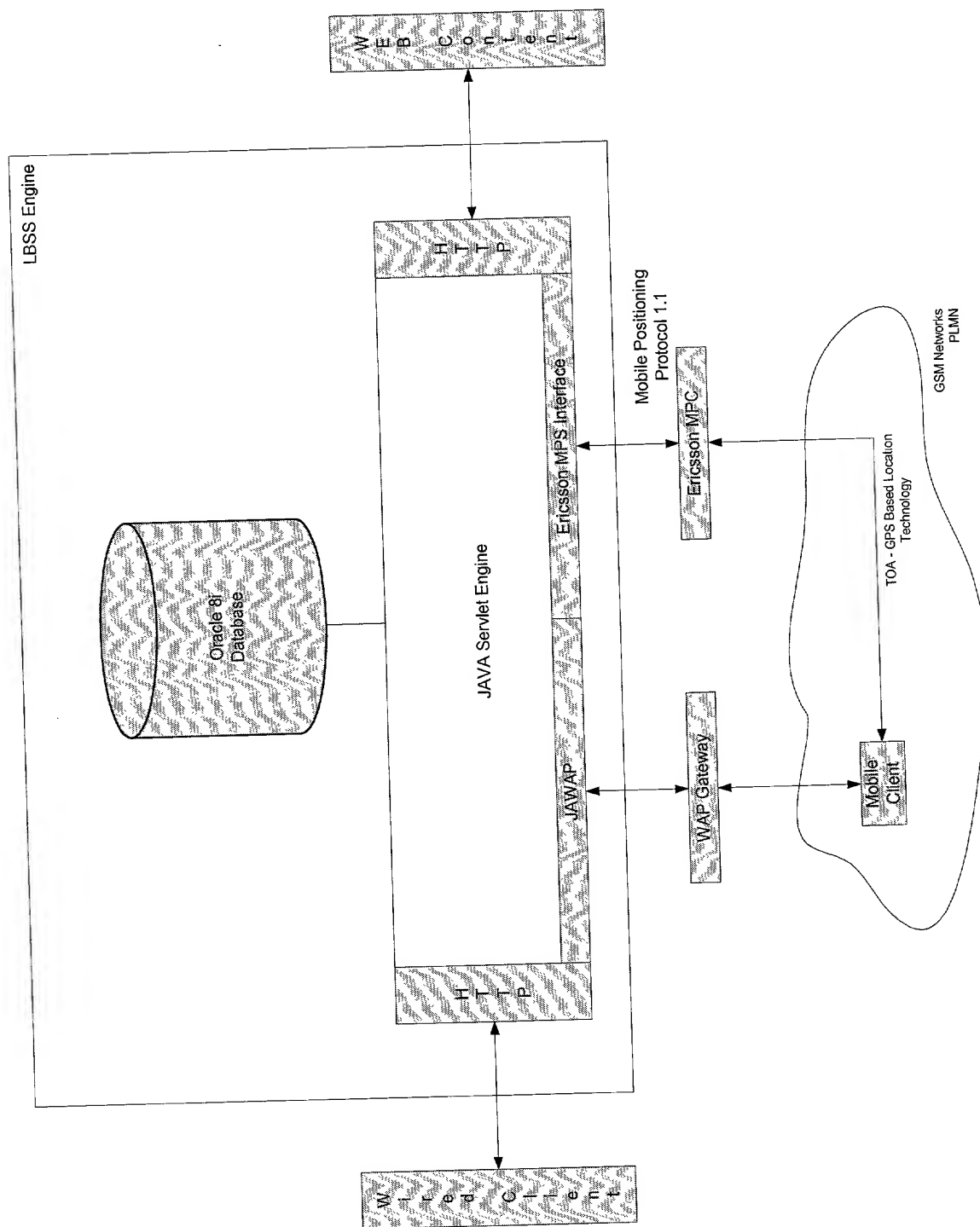


FIG 8

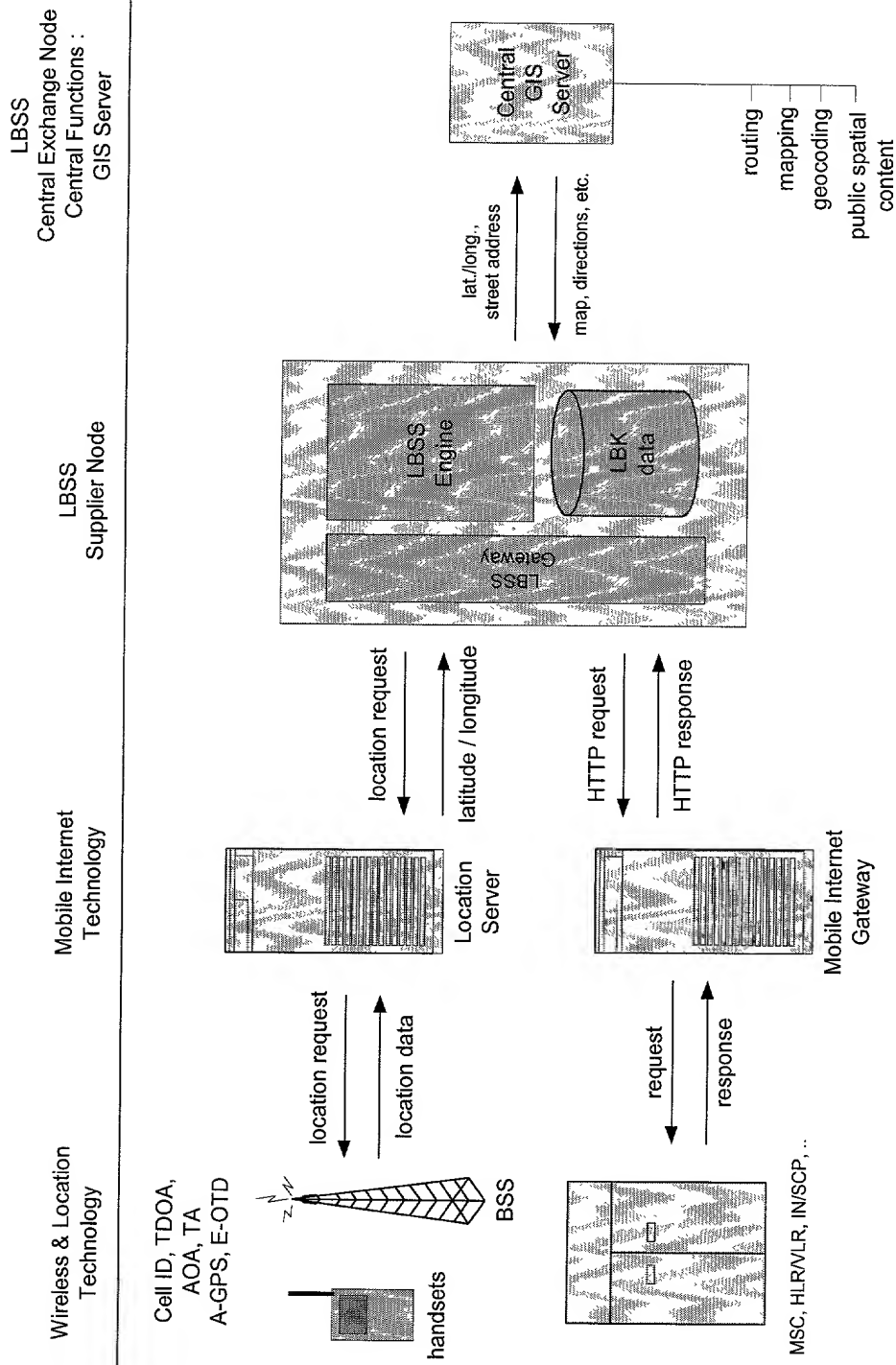


FIG 9

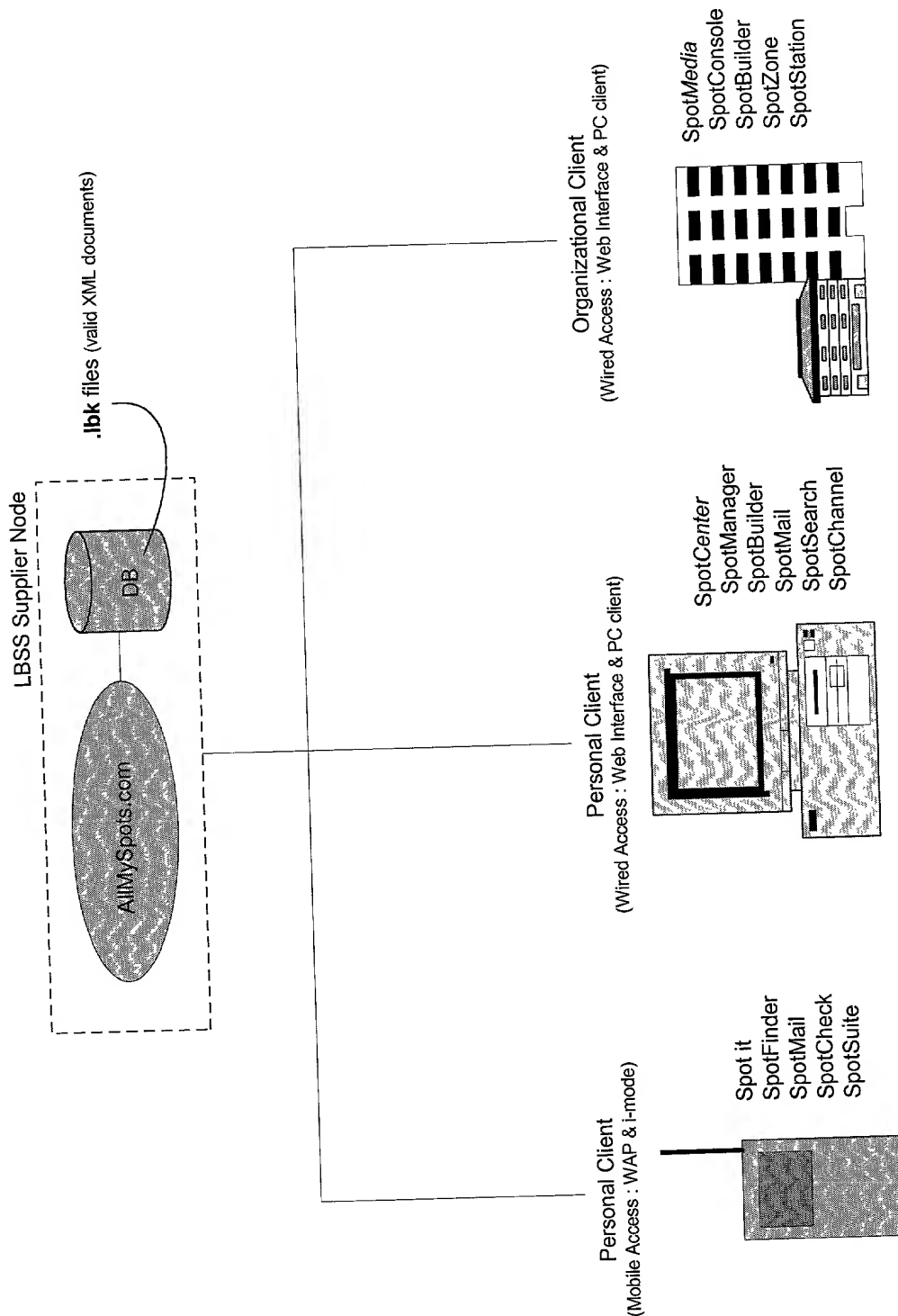


FIG 10

start

1- Hybrid Selection

ex. MySpots/Restaurant/Sushi -- Spot

it

2- Name Entry

Enter name	
1- voice agent	
Name .	
Go	Submit

Intelligent Voice Recognition Engine (IVRE)  
ex. "T","A","K","A","R","A"

3- Details Entry

"Takara" Details	
1- {none}	
2- search keywords ✓	
3- text description	
4- vocal description	
5- image	
Go	Submit

TBD

4- Confirmation

confirmation panel

end

Spot it

Takara search keywords	
1- voice agent	
keywords :	
k1 (restaurant)	from the user path
k2 (sushi)	
k3 (choice)	from the IVRE
k4 (fast)	
k5 (parking)	from the Keypad
k4 (intimate)	
Go	Submit

Intelligent Voice Recognition Engine (IVRE)  
ex. choice, fast

Takara text description	
comment :	
tel :	
	from the Keypad
Submit	

Takara vocal description	
Dictation in 5-4-3-2-1 Go	
stop	

FIG 11

FOU280" 9587E560

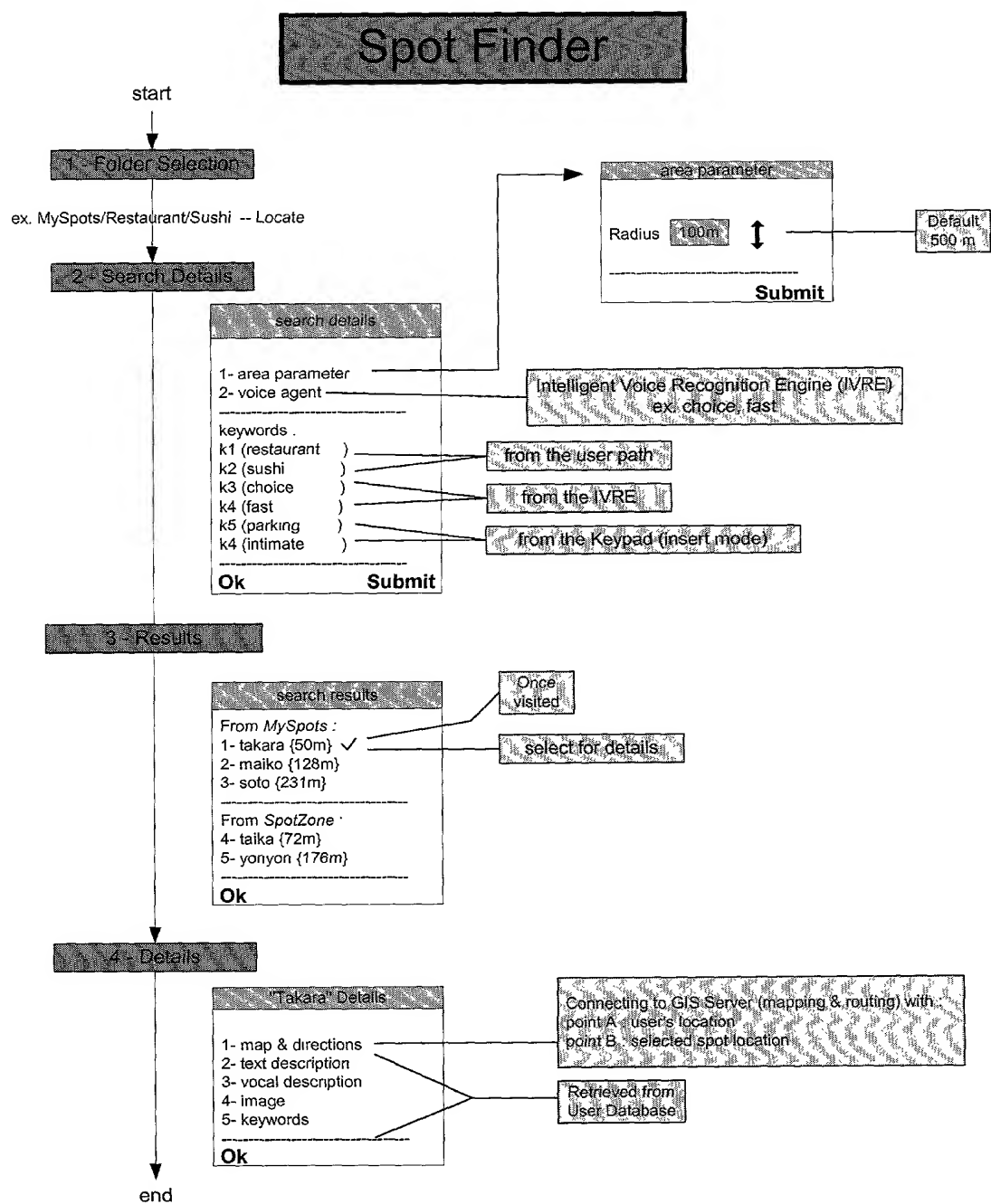


FIG 12



[illegible]

**FIG 13**

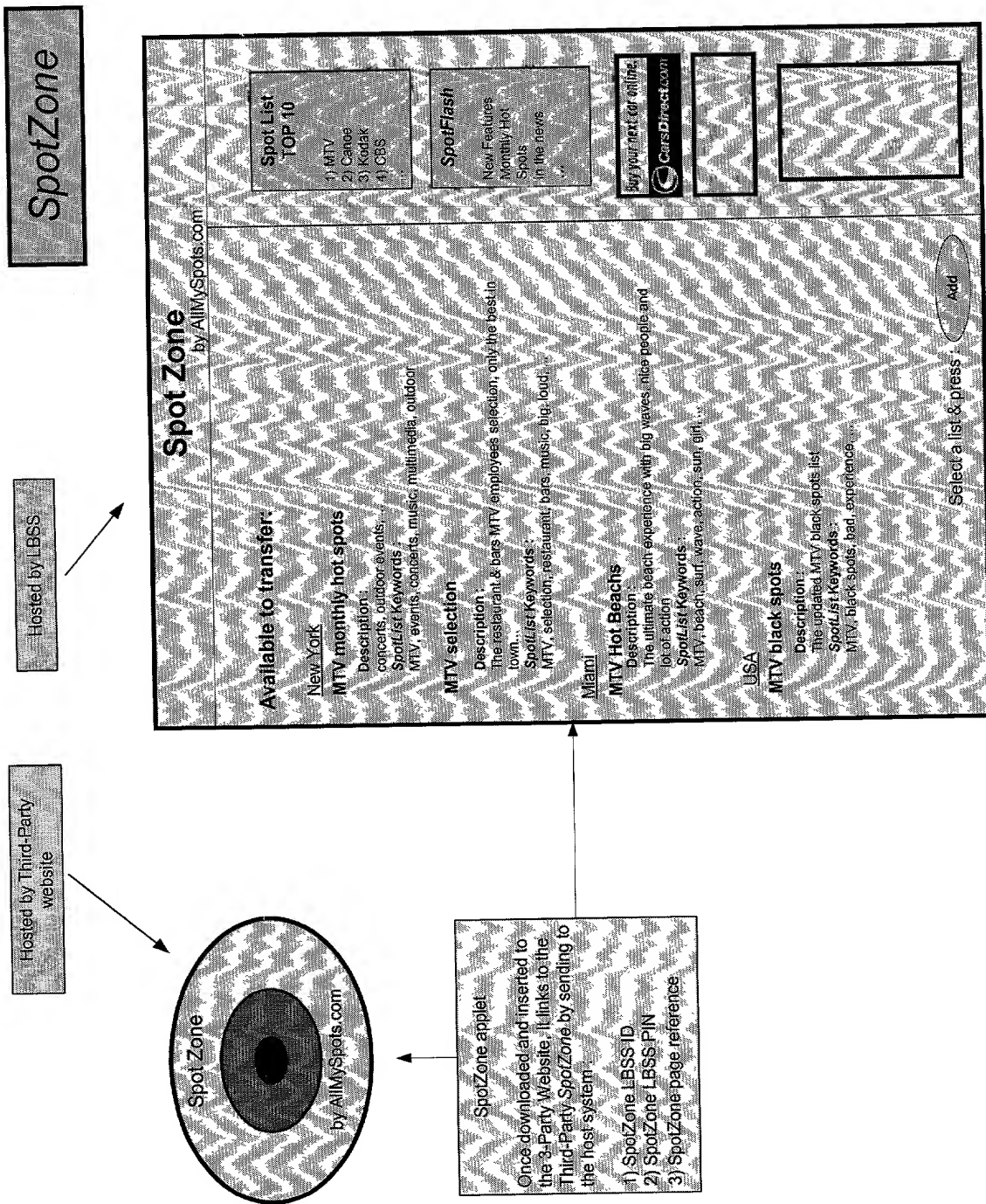


FIG 14